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ECOSYSTEMS IMPROVED FOR SUSTAINABLE FISHERIES (ECOFISH) PROJECT

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PERFORMANCE MONITORING PLAN

ECOFISH Document No.: 06/2013
Version: Final

Implemented with:
Department of Agriculture-Bureau of Fisheries and Aquatic Resources
National Government Agencies
Local Government Units
Assisting Organizations

Supported by:
United States Agency for International Development
Contract No.: AID-492-C-12-00008

Managed by:
Tetra Tech ARD

30 April 2013

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Abbreviations and Acronyms

BFAR	-	Bureau of Fisheries and Aquatic Resources
CBO	-	Community-Based Organization
CCA	-	Climate Change Adaptation
COP	-	Chief of Party
COR	-	Contracting Officer's Representative
CRM	-	Coastal Resource Management
CRMP	-	Coastal Resource Management Project
CTI-CFF	-	Coral Triangle Initiative for Coral Reefs, Fisheries, and Food Security
DA	-	Department of Agriculture
DQA	-	Data Quality Assessment
DENR	-	Department of Environment and Natural Resources
EAFM	-	Ecosystem Approach to Fisheries Management
ECOFISH	-	Ecosystems Improved for Sustainable Fisheries Project
FACTS	-	U.S. Foreign Assistance Coordination and Tracking System
FISH	-	Fisheries Improved for Sustainable Harvest Project
KSA	-	Knowledge, Skills, Abilities
LGU	-	Local Government Unit
M&E	-	Monitoring and Evaluation
MIS	-	Management Information System
MKBA	-	Marine Key Biodiversity Area
MPA	-	Marine Protected Area
MSY	-	Maximum Sustainable Yield
NGO	-	Nongovernmental Organization
PIRS	-	Performance Indicator Reference Sheet
PMP	-	Performance Monitoring Plan
PPP	-	Public-Private Partnership
RF	-	Results Framework
RFP	-	Request for Proposal
SAF	-	Strategic Activities Fund
SWOT	-	Strengths, Weaknesses, Opportunities, Threats
USAID	-	United States Agency for International Development
USG	-	United States Government

1. Introduction

Tetra Tech ARD understands the value of a Performance Monitoring Plan (PMP) to guide adaptive management, and its importance as a central tool to promote project success. Our approach in the Ecosystems Improved for Sustainable Fisheries (ECOFISH) Project will employ a robust PMP with rigorous baselines as a foundational management tool. This document outlines the reliable, accurate, and timely data collection systems and processes that we will employ to foster and promote analysis, information dissemination, and learning. In addition to its use for internal project management and for reporting to USAID, the PMP is designed to be versatile and "transferable," to allow partners, communities, and governmental and nongovernmental organizations to learn from and replicate it. Ultimately a mechanism for learning, the PMP will be one of the principal tools used by ECOFISH to implement an adaptive management approach. Under the leadership of the Chief of Party (COP) and the M&E/CRM Training specialist, the PMP will:

- Allow management to identify, replicate, and maximize successful activities while concurrently understanding why some activities fall short of anticipated results;
- Promote and facilitate accountable and effective evidence-based decision making;
- Provide a system for ECOFISH to assess capacity-building results against established targets;
- Identify "red flags" through systematic early warning to address problems proactively; and
- Provide data, information, analysis, and learning for USAID and other relevant stakeholders.

The performance indicators, targets, and methodology for establishing the Management Information System (MIS) outlined in this PMP will be vetted with USAID/Philippines and key stakeholders. The PMP provides details on performance indicators and targets, baseline methodologies and approaches, and data collection methodology as well as the human and technical resources necessary to consistently provide accurate, timely, and reliable performance data.

2. Overall Approach to Performance Management

Tetra Tech's approach to ECOFISH builds on the many successful elements of the FISH Project, the many lessons learned, and the solid foundation of partners and Ecosystem Approach to Fisheries Management (EAFM) awareness that it helped engender. The objectives of ECOFISH, however, are much more ambitious and broader in scope than those of FISH and will require us to move well beyond FISH to both expand the application of EAFM at additional sites and to put in place the elements for institutionalizing EAFM nationally through innovative approaches and partnerships. Our overall programmatic approach is designed to achieve the next critical phase in coastal and fisheries resource management and trajectory—to advance EAFM nationwide. Tetra Tech's approach to achieve the key results and deliverables of ECOFISH is organized under five interrelated guiding principles and corresponding implementation strategies espoused by ECOFISH. Underlying this approach is the basic assumption that in order to have significant impact in the eight MKBAs and at the national level, working closely with other implementers (including USAID-supported NGOs and universities) and empowering local institutions, is fundamental. We will use the Strategic Activities Fund (SAF) to support these project interventions.

2.1. Threats and Opportunities

ECOFISH is conceptualized on the basis of EAFM principles and practices, which is a proven approach for reversing the decline of fish biomass in municipal waters and building community resilience. EAFM aims to manage fisheries at ecosystem scales rather than the scales defined by jurisdictional boundaries. Effective collaborative governance arrangements for EAFM provide the multiple benefits of improving ecosystem management, reducing the unit costs of management, and making the establishment of sustainable financing mechanisms and public-private partnerships (PPPs) more feasible and attractive to investors. Development of PPPs is a key strategy of the Philippine Development Plan. The newly formed Philippine Public-Private Partnership Center is in place to support this strategy.

ECOFISH is starting at an apportune moment and with the strong commitment of national and local leaders to address overfishing and coastal habitat degradation in the Philippines. Improved management of coastal and fisheries resources is a prominent goal of the Philippine Development Plan (2011–2016). The national legal and policy framework for coastal and fisheries management is largely in place. The DA-BFAR, DENR, and other national government agencies, nongovernmental organizations (NGOs), and academic institutions are actively engaged and making steady progress toward achievement of the goals agreed to by six countries under the Coral Triangle Initiative for Coral Reefs, Fisheries, and Food Security (CTI-CFF). Finally, there is an increasing recognition of the need for coastal and fisheries resource management and demand for technical support from local government units (LGUs). ECOFISH is designed to support priorities of the Philippine government by applying an ecosystem approach to the management of fisheries, creating job opportunities by promoting private investments in sustainable fisheries, and supporting the implementation of the CTI National Plan of Action.

ECOFISH will target eight marine key biodiversity areas (MKBA). Common issues faced in all MKBAs include:

- Loss of marine biodiversity;
- Declining fish stocks;
- High population growth;
- Limited private sector investment;
- Inconsistent policies and programs for sustainable fisheries; and
- Weak institutional and stakeholder capacity to plan and implement fisheries management.

The fisheries sector is enormously important to the economy of the Philippines and particularly to the poorer and more marginalized citizens whose livelihoods depend on small-scale fisheries. Despite this importance, BFAR's national stock assessment program reports that two-thirds of the 12 major fishing bays in the country are already overfished. Demersal fish stocks are only about 10 to 30 percent of their early 1950s levels. Maximum sustainable yield (MSY) of small pelagics was already reached in the 1970s. Catch rates of reef fisheries are among the lowest in the world, partly due to dynamite and cyanide fishing. Excessive fishing has resulted in the decrease in average sizes of fishes, shifts in species composition, and steep decline in

abundance of valuable species. While the Philippines currently ranks 8th globally in total fisheries production, the economic and food security benefits derived from this sector are only a fraction of what they could be if managed sustainably.

At a national level and while promoting private sector investment, the excess capacity of the commercial fishing sector must be addressed by reducing the number of commercial fishing licenses; combating illegal, unregulated, and underreported fishing; and addressing short-term negative impacts on food security through strategic fish imports and other protein sources. At the local level, improved management of municipal waters must be addressed through the individual and collective efforts of local governments, communities and assisting organizations.

Climate change is expected to exacerbate the declining condition of coastal and fisheries resources in each MKBA. Sea temperature anomalies and ocean acidification are expected to degrade not only coral reef habitats for fish but also the natural protective function afforded coastal communities from waves and storm surges. Climate change will also result in changes in oceanographic conditions that are expected to alter the food web and resulting fish distribution and migration patterns. Healthy fisheries and habitats are a critical component of building community resilience to climate change. Table 1 includes a summary of some of the more critical threats and opportunities facing the MKBAs where ECOFISH is working.

2.2. Results Framework

The ECOFISH contract (AID-492-C-12-00008) is prescriptive as to the required tasks and deliverables. The tasks are the following:

Task 1: Establish and Implement a National Training Program
Task 2: Provide Technical and Advisory Support at the National Level
Task 3: Create Public-Private Partnerships
Task 4: Provide Technical and Advisory Support at the Local Level
Task 5: Develop a Registry of Users of Municipal Fishing Waters
Task 6: Identify and Implement Sustainable Financing Programs to Support EAFM Projects
Task 7: Establish a Baseline on Coastal and Marine Resources and Relevant Socio-economic Information, Develop and Apply Metrics on Monitoring EAFM Implementation in Target MKBAs

At the end of five years, the 13 ECOFISH project deliverables (see Table 2) are expected to lead to the following key results:

A) An average of 10% increase in fisheries biomass across the eight MKBAs.
B) A 10% increase in the number of people gaining employment or better employment from sustainable fisheries management from a baseline established at the start of the project.
C) Establishment of a national capacity development program to enhance the capacities of LGUs and relevant national agencies to apply ecosystem-based approaches to fisheries management.
D) Eight public-private partnerships supporting the objectives of the ECOFISH project created and operating.

E) One million hectares of municipal marine waters under improved management.
F) A core of 30 LGUs across the eight MKBAs with improved capacity for implementing ecosystem approaches to fisheries management.

Table 2 presents the main relationship between the 13 deliverables and the six key results. Tasks and deliverables leading to Results C and D build the foundation for project activities. Those for Results E and F drive the implementation at the MKBA level, and taken together they attain the overall ECOFISH Results A and B. While the presentation of Key Results focuses specifically on deliverables, the seven project tasks are reflected indirectly in the interventions that are needed to complete each of the deliverables.

Table 1. Summary of Ecosystem Features, Opportunities and Threats in the Eight MKBAs

MKBA	Ecosystem Features	Opportunities	Threats
Calamianes Island Group	70 percent of the coral and seagrass species recorded in the Philippines	Take advantage of focus on MPA management to support ecotourism and economic alternatives; collaborate and leverage work at CTI demonstration site.	Destructive fishing and uncontrolled live fish trade; one weak LGU reduces impact of inter-LGU alliance activities.
Lingayen Gulf	Extensive coral reef, seagrass, and soft bottom community supporting the rich fishing ground	Ability to identify specific protection and management interventions from long-term fisheries data sets; leverage high awareness due to past environmental programs to implement EAFM activities.	Severe overfishing and poor water quality in mariculture areas resulting in fish kills; lack of inter-LGU alliances.
Danajon Reef	One of only three double barrier reefs in the Indo-Pacific region	Take advantage of strong provincial and municipal buy-in of CRM programs to further EAFM goals. Strong LGU alliances.	High fish demand lead to high fishing pressure and illegal fishing
South Negros Island	Deep water harbors large and small pelagic fishes	Begin to formalize and develop EAFM activities by building on long history of community-based marine protected areas.	No comprehensive assessment of capture fisheries; lack of inter-LGU alliances.
Sulu Archipelago	Rich ecosystem with massive network of coral reefs, seagrass beds and mangroves	Collaborate and leverage work at CTI demonstration site; begin the capacity building by capitalizing on increasing awareness on coastal and fisheries resource management.	Still weak management and law enforcement and lack of formal inter-LGU alliance agreements; unsustained support from some local governments.
Surigao del Sur and Surigao del Norte	Extensive deepwater and shallow water coral reef, seagrass and soft bottom resources	Take advantage of strong inter-LGU alliances to leverage and increase fisheries interventions.	Upland erosion and siltation from mine tailings impacting nearshore habitats.
Ticao Pass - San Bernardino -Lagonoy Gulf	Diverse small pelagic resources; important habitat for dolphins, dugongs, and whale sharks	Utilize long-term data for Lagonoy Gulf and Sorsogon Bay to identify specific interventions; take advantage of active university involvement to participate in the project activities and development of employment from growing marine ecotourism sector.	Steep declines in fish stocks; encroachment of commercial vessels; complex marine ecosystem; lack of inter-LGU alliances.
Verde Island Passage	Considered the 'center of the center' of the world's fish diversity	Long-term marine conservation initiatives by NGOs; CTI demonstration site.	Encroachment of commercial vessels, use of cyanide in aquarium fish collection.

Table 2. Main Relationship between Project Tasks, Deliverables and Results

Tasks	Deliverables	Results	
		Result A. An average of 10% increase in fisheries biomass across the eight MKBAs. **Result B**. A 10% increase in the number of people gaining employment or better employment from sustainable fisheries management from a baseline established at the start of the project	**Final Outcomes**
Task 1. Establish and Implement a National Training Program **Task 2**. Provide Technical and Advisory Support at the National Level **Task 3**. Create Public-Private Partnerships	**Deliverable 1**. Policy Studies on EAFM, MPA, and Climate Change **Deliverable 2**: Toolkits, Sourcebooks, and Case Studies on EAFM, MPA, and Climate Change **Deliverable 3**: A National Database on EAFM Established Using the Annual Monitoring Data in the 8 MKBAs **Deliverable 4**: State of the Marine Resources Report **Deliverable 5**: National, Regional and Municipal EAFM Trainings Conducted **Deliverable 6**: Public-Private Partnerships Supporting ECOFISH Objectives Established	**Result C**. Establishment of a national capacity development program to enhance the capacities of LGUs and relevant national agencies to apply ecosystem-based approaches to fisheries management. **Result D**. Eight public-private partnerships supporting the objectives of the ECOFISH project created and operating	**Build Foundation**
Task 4. Provide Technical and Advisory Support at the Local Level **Task 5**. Develop a Registry of Users of Municipal Fishing Waters **Task 6**. Identify and Implement Sustainable Financing Programs to Support EAFM Projects **Task 7**. Establish a Baseline on Coastal and Marine Resources and Relevant Socio-economic Information, Develop and Apply Metrics on Monitoring EAFM Implementation in Target MKBAs	**Deliverable 7**: Bio-physical, Social and Economic Baseline Assessments of the 8 MKBAs **Deliverable 8**: Scientific Studies on Select MKBA- Specific Fish Species **Deliverable 9**: MPA Network Analyses in the 8 MKBAs **Deliverable 10**: Fisheries Management Plans of Select Inter-LGU Alliances in the 8 MKBAs **Deliverable 11**: Registry of Users of Municipal Fishing Waters Established in Select Municipal LGUs in the 8 MKBAs **Deliverable 12**: Revenue Generation System for Fisheries Management Established and Effectively Implemented in Select LGUs **Deliverable 13**: Sustainable Financing Programs for EAFM Implemented in Select LGUs in the 8 MKBAs	**Result E**. One million hectares of municipal marine waters under improved management. **Result F**. A core of 30 LGUs across the eight MKBAs with improved capacity for implementing ecosystem approaches to fisheries management.	**Implement Best Practices**

Closely related to the linkages of ECOFISH results in the Results Framework (RF) is an exercise to track US Government (USG)/Department of State 'FACTS' (Foreign Assistance Coordination and Tracking System) indicators against ECOFISH key results. 'FACTS' indicators are required of US Missions (including USAID) worldwide in reporting on achievements. The table on baseline and monitoring targets presented later in the PMP includes, among others, FACTS indicators for key ECOFISH results. Such indicators, shared across the Agency, allow USAID to aggregate measurement at a higher-than project or project level and to aggregate reporting of results.

3. Monitoring and Evaluation

The ECOFISH M&E/CRM and Enforcement Training Specialist oversees all M&E-related activities, with a majority of time and energy invested in developing and managing M&E systems and subsequently building the capacity of local partners to participate in the project M&E. Performance data will be monitored primarily by project technical staff, as well as local project-supported partners and institutions. Periodically, in an effort to build the M&E capacity and sustainability of Philippine entities, the M&E/CRM Training Specialist and project team will provide M&E-related technical support through a variety of methods including, but not limited to, formal workshop-setting instruction; hands-on, field-based exercises; experiential learning; and mentoring.

We will collect a variety of programmatic data; those that contribute to the project's performance indicators and targets (Table 3) are of premier importance. The Tetra Tech ARD project team will report on both custom and standard indicators. We have selected standard FACTS indicators from the Biodiversity Code and Global Climate Change Initiative. We will measure a mix of output, outcome, and impact indicators that will be disaggregated, when feasible, by gender, MKBA, municipality, among possible others. We have assigned illustrative targets to each of the indicators. These will be refined as we progress in implementation

3.1. Establishing and Collecting Baseline Data

Tracking the key performance indicators used in measuring ECOFISH progress is the fundamental task of the project's monitoring and evaluation effort. Evidently, ECOFISH, as designed, will evolve and grow and may present some unique challenges for measuring outcomes and results. To overcome these, it is critical that a baseline be established for documenting project results.

Usually a baseline must be established for any project seeking to effect change in order to determine the results of its interventions. Some baselines may already be known, others may require data collection, and yet others will be established to measure change against results indicators. We have begun the process of reviewing potential baselines based on the kinds of indicators identified.

Informed by input and feedback from USAID and government partners, the Tetra Tech ARD project team will develop a baseline survey to assess the effects of activities on all project

outcomes. The survey will also include basic questions on Philippine marine resources, biodiversity, resource management institutions, and fisherfolk livelihoods, which will be used to measure impact against intended results. Through consultation with USAID and government partners we will finalize MKBA focal sites and target municipalities and compile demographic and economic information to form a profile of the populations within MKBAs. The baseline assessment is the first of possibly three interconnected activities that will track and assess ECOFISH impact. In consultation with USAID, a mid-term performance review is tentatively scheduled during the first to second quarter of 2015 to review project strategies and results. A final evaluation of project outcomes is planned for January 2017. This process would allow us to compare results over a time series (e.g., comparing results from the baseline study against a possible mid-term assessment, and then against the final evaluation).

Measuring the Biophysical Baseline. The ECOFISH baseline assessment will be conducted during the first year at the outset of the project in order to define the scope of ecosystem components to be evaluated and biophysical conditions before project activities are implemented. For the establishment of marine protected areas (MPAs) and network of MPAs, baseline assessment for coral reef ecosystems will be conducted using the methods described in Coral Reef Monitoring for Management document employed in FISH. To determine the increase in fish biomass in the eight MKBAs, fishery-dependent methods will be used to determine the baseline for fish and invertebrate species in each focal area. For this purpose we will consult the detailed description of baseline assessment methods provided in the Baseline Assessment Plan of the FISH project.

Following from the initial biophysical baseline we will conduct monitoring in 2015 and 2017 in each focal area. These will focus on biophysical changes in comparison to baseline conditions as measured by the performance indicators presented in the PMP tables (see below). To minimize the effects of seasonal variations in data collection, monitoring events will be conducted to coincide with the timeframe during which the baseline assessment was conducted in 2013.

Measuring the Livelihoods Baseline. This baseline will be established through a survey of individual households. The sample will ideally be at least 10% of the total household population. In order to be strategic regarding our budget, we will employ random sampling using a minimum of 500 respondents per focal area. For example, if the focal area comprises four municipalities, we will target at least 125 households per municipality. Ultimately, sample size is contingent on the budget allocated for this activity.

The survey itself will include income and expenditure instruments and will rely on the fish catch survey, to be coordinated with the biophysical baseline measure noted earlier. The expenditures survey will be based on existing instruments being implemented by the national government statistics office, though in the case of ECOFISH we will limit it to major expenditure items. We will establish panel data in order to maintain consistency among respondents from year 1 to subsequent surveys.

For the measure of LGU revenues we will work closely with LGU treasurers and accountants. Municipal revenue/income accounts are easily accessible in the form of accounting spreadsheets.

Table 3. Baseline, Performance Indicators and Monitoring Targets for the Life of Project

PIRS[1] No.	Key Result Area	Indicator	Baseline	Numerical Targets				
				Year 1	Year 2	Year 3	Year 4	Year 5
1	**Result A**. An average of 10% increase in fisheries biomass across the eight MKBAs.	Percentage increase in the biomass of selected fisheries in the focal areas across the 8 MKBAs relative to baseline using fisheries dependent method and MPA assessment method	Estimate of biomass (TBD)			5		10
2	**Result B**. A 10% increase in the number of people gaining employment or better employment from sustainable fisheries management from a baseline established at the start of the project	Percentage increase in the number of people gaining employment or better employment in the focal areas across the eight MKBAs relative to baseline using socio-economic methods	Estimate of number (TBD)			5		10
3	**Result C**. Establishment of a national capacity development program to enhance the capacities of LGUs and relevant national agencies to apply ecosystem-based approaches to fisheries management.	Number of EAFM training courses conducted (national, regional and local)	0	20	30	40	30	0 (total = 120)
4		Number of persons trained in EAFM, MPA and CCA (national, regional and local) [FACTS 4.8.1-27: Number of people receiving USG supported training in natural resources management and/or biodiversity conservation]	0	300	450	600	450	150 (total = 1,800)
5		Number of person hours of training on EAFM, MPA, and CCA (national, regional and local) [FACTS 4.8.1-29: Number of person	0	4,800	6,000	6,000	4,800	2,400 (total = 24,000)

[1] Performance Indicator Reference Sheet (see Appendix 1)

PIRS[1] No.	Key Result Area	Indicator	Baseline	Numerical Targets				
				Year 1	Year 2	Year 3	Year 4	Year 5
		hours of training in natural resources management and/or biodiversity conservation supported by USG assistance]						
6		Number of policy studies on EAFM, MPA, and CCA (national) [FACTS 4.8.2.28: Number of laws, policies, strategies, plans, agreements, or regulations addressing climate change and/or biodiversity conservation formally proposed, adopted, or implemented as a result of USG assistance]	0	2	3	3		
7	**Result D**. Eight public-private partnerships supporting the objectives of the ECOFISH project created and operating	Number of strategic partnerships formally established and operating (cumulative)	0	2	4	6	8	
8		Number of community partnerships actively engaged and mobilized (cumulative)	0	10	40	60	100	
9	**Result E**. One million hectares of municipal marine waters under improved management.	Number of hectares of municipal waters under improved management (cumulative) [FACTS 4.8.1-26: Number of hectares of biological significance and/or natural resources under improved natural resource management as a result of USG assistance]	0		200,000	450,000	850,000	1,000,000
10		Number of hectares of MPAs and network of MPAs established (cumulative) [FACTS 4.8.1-26: Number of hectares of biological significance and/or natural resources under improved natural resource management as a result of USG assistance]	0		64	192	320	

PIRS[1] No.	Key Result Area	Indicator	Baseline	Numerical Targets				
				Year 1	Year 2	Year 3	Year 4	Year 5
11	**Result F**. A core of 30 LGUs across the eight MKBAs with improved capacity for implementing ecosystem approaches to fisheries management.	Number of inter-LGU/MKBA fisheries management plans developed	0	0	2	2	2	2
12		Number of LGUs that have achieved EAFM benchmark level 2 or higher (cumulative)	Estimate of benchmark level TBD		10	20	30	42

3.2. Data Collection Responsibilities

Ongoing data collection will be the responsibility of all staff and partners. A senior M&E expert mobilized by Tetra Tech ARD will provide periodic support to the ECOFISH team in PMP development, implementation and revision, and will ensure technical quality control. Table 4 shows M&E steps of data collection, management, and preparation of quarterly and annual PMP reports. Thematic specialists are responsible for confirming data for their respective activities through oversight and inspection. ECOFISH implementing partners will participate in the refinement of proposed indicators during project start-up, will receive instruction on definitions and monitoring methodologies, and will be oriented with regard to their specific responsibilities for data gathering and reporting.

In consultation with USAID, a final evaluation of the project is tentatively planned for the first quarter of 2017. Its focus will be to evaluate the achievements of the project versus the stated objectives and goals, to identify which elements of the project had the most significant impact and which did not, and which aspects of project design need to be considered for continuation under future possible projects. USAID has noted that Tetra Tech may be requested to provide input to the evaluation and be prepared to collaborate in its implementation. We note that in addition to USAID guidance on a final evaluation, that it should mirror the baseline assessment in scope and methodology. It would provide data to be used to make more definitive statements about impacts, and pull together and analyze data from previous assessments to provide a holistic picture of ECOFISH-attributable impacts.

3.3. Management Information System

The M&E/CRM Training Specialist will work with the project team to develop an effective, adaptable, and user-friendly Management Information System (MIS). The MIS will have three primary functions: (1) provide data storage of qualitative and quantitative data; (2) facilitate reporting/information formats; and (3) conduct analysis of data (specifically data disaggregated by MBKA, municipality, ecosystem feature, gender, among others, as well as data from the baseline and possible mid-term and final monitoring events). The MIS will provide data in a format that can easily be exported and sent to USAID. We will work with Philippine and USG partners to explore the possibility of mapping of activities through the use of geospatial data. Ideally, under such an arrangement, field teams would record global positioning system coordinates for project activities not only to visually represent program project sites, but also to provide quantitative data on activities and sites including, but not limited to MKBA, municipalities, selected ecosystem features, date the project activity is started/completed, and indicators to which an activity contributes.

Table 4. Data Collection, Analysis and Reporting Schedule

Major Steps	**2012**		**2013**				**2014**				**2015**				**2016**				**2017**	
Quarter	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**
Submission of draft and Final PMP																				
Establish Baseline																				
Collection, review and compilation of data at project level																				
Semi-annual Report and Quarterly update																				
Annual Program Report																				
Final Program report																				
Assess data quality																				
Review and update PMP																				
Final (possible mid-term) Evaluation																				

4. Reviewing and Updating the PMP

The PMP will serve the ECOFISH management team as a tool to guide overall project performance. One of the key principles of the PMP is that it will be a useful tool for management and organizational learning; the PMP is *not* merely a mechanism to fulfill USAID reporting requirements. As such, it will be updated as necessary to reflect changes in ECOFISH strategy and ongoing project activities. PMP implementation is therefore not a one-time occurrence, but rather an ongoing process of review, revision, and reimplementation. The PMP will be reviewed and revised annually. When reviewing the document, the following issues shall be taken into account:

- Are the performance indicators working as intended in the design process?
- Does the indicator stand up to scrutiny?
- Are the performance indicators providing the information needed to properly gauge ECOFISH inputs and outcomes in each of the major project areas?
- How can the PMP be improved?

Technical experts assisted by the Database/MIS Specialist and under the guidance of the Chief of Party (COP) and Deputy Chief of Party (DCOP) will document any major changes to the PMP regarding indicators or data sources, along with the rationale for these adjustments. If minor PMP elements change, such as indicator definition or responsible individual, the PMP will be updated to reflect these changes.

After data have been analyzed, they will be available for reporting to USAID/Philippines and other stakeholders. We will support each data point reported to USAID with documentation in the program's office in Manila. Data against performance indicators will be available for reporting to USAID/ Philippines quarterly and annually, as well as each September and March (semi-annually to the USG fiscal year). With assistance from Tetra Tech ARD's home office Senior M&E Specialist, the ECOFISH Database/MIS Specialist will quickly and thoroughly put in place the systems described above by second quarter of the project. However, building a project-wide understanding and appreciation for M&E will be a long-term process that will be championed by the ECOFISH Database/MIS Specialist and management team.

We will work closely with USAID to ensure our internal MIS supports all external and necessary systems. Furthermore, we recognize that some of the data collected through the ECOFISH M&E approach may be valuable in other forums, for example GCC and Biodiversity working groups and we will endeavor to create linkages where appropriate.

5. Assessing Data Quality

It is important that in the data collection process, appropriate standards for data quality are in place for use by external users (e.g., government officials). Poor quality data can create two problems: (1) providing poor information to project decision makers; and (2) skewing information used for reporting purposes. To measure and attribute results accurately–for both reporting and management needs the COP, with support from the technical specialists, will ensure that collected data meet certain standardized evaluation criteria[2]. The COP and these specialists will be responsible for carrying out annual data quality assessment (DQA) reviews.

[2] This criteria as discussed in USAID's ADS 203 include validity, reliability, timeliness, precision, and integrity.

6. Learning Through Performance Management

An important and often missing step in the M&E cycle is "learning." This critical step allows space for program staff and other stakeholders to find the "pattern in the noise." This internal programmatic process takes place semi-annually to discuss a series of questions including, but not limited to: project success; opportunities to redesign and improve activities; demonstrated impact on municipality systems and practices; unintended negative impacts; and red flags. The COP will lead these semi-annual meetings of the entire staff to assess the success of activities as they contribute to the Results Framework and overall goal based on quantitative data and supported by staff members' qualitative experience and information. This will also be an opportunity to update staff on the project's best M&E practices, obtain group feedback on data collection quality and timeliness of reporting, and address any unexpected challenges in data collection and entry. This cyclic and participatory process supports a rigorous, evidence-based approach to informed programmatic decision-making.

7. Mainstreaming Gender

ECOFISH applies gender principles across the project, both in disaggregating data along gender lines where relevant (e.g., in training programs) and in focusing on gender specifically in the livelihoods portion of the project. In this respect ECOFISH is congruent with USAID's recently released and revised gender mainstreaming policy, "Gender Equality and Female Empowerment Policy," (March 2012). Two stated outcomes of this Policy are directly relevant to ECOFISH, namely: (1) reduce gender disparities in access to control over and benefit from resources, wealth, opportunities and services – economic, social, political and cultural, and (2) increase capability of women and girls to realize their rights, determine their life outcomes, and influence decision-making in households, communities and societies. We will ensure that gender-salient data noted above is captured and used in responding to the two policy-linked outcomes.

8. Performance Indicator Reference Sheets

The Performance Indicator Reference Sheet (PIRS) is an important part of the performance management toolkit. The PIRS is a comprehensive reference sheet prepared for each indicator. It is used to record and update all relevant specifications and details for a particular indicator. It provides staff with a complete overview of each performance indicator, including where the raw data comes from and how they can be analyzed. The sources of F indicators cited in the PIRS are: a) Climate Change and Biodiversity and b) Cross-Cutting Indicators. In addition to the F Bureau indicators, the PIRS also include ECOFISH-specific indicators, noted earlier in the indicator targeting tables identified for each Output, Outcome, or Impact based on intended achievements. The PIRS are presented in detail in Appendix 1.

9. References

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Appendix 1. Performance Indicator Reference Sheets

Performance Indicator Reference Sheet No. 1

USAID Development Objective: Natural resources and environmental services improved			
ECOFISH Objective: Improved management of important coastal and marine resources and associated ecosystems that support local economies			
Key Result A: An average of 10% increase in fisheries biomass across the eight MKBAs			
Name of Indicator: Percentage increase in the biomass of selected fisheries in the focal areas across the eight MKBAs (cumulative)			
Geographic Focus: Cluster sof LGUs representing the focal areas across the eight MKBA			
Is this an Annual Report indicator? Yes			
DESCRIPTION			
Precise Definition(s): Average percent change in catch per unit effort compared to baseline based on fishery-dependent method and MPA assessment method. The details are described in the ECOFISH Baseline Assessment Plan.			
Unit of Measure: Percent			
Method of Calculation: Percent change of catch per unit of effort of fishing gears as proxy estimate of biomass and percentage change of fish biomass in MPAs			
Disaggregated by: MKBA, focal area			
Justification & Management Utility: Since this is a measurement of a key thrust of the project it is important to develop accurate, replicable measures of biomass increases. The catch per unit effort measurements will also serve as basis for monitoring the progress of fisheries management initiatives implemented in the focal areas/MKBAs			
PLAN FOR DATA ACQUISITION BY USAID			
Data collection method: Fish catch monitoring and MPA assessment			
Data Source: Fish landing by fishermen and fish abundance from MPA assessment			
Method of data acquisition by USAID: Review of annual reports			
Frequency and timing of data acquisition by USAID: Years 1, 3 and 5			
Estimated cost of data acquisition: TBD			
Individual responsible at USAID: COR			
Individual responsible for providing data to USAID: COP			
Location of Data Storage: Project MIS			
DATA QUALITY ISSUES			
Date of Initial Data Quality Assessment: During and right after baseline assessment			
Known Data Limitations and Significance (if any): Affected by seasonality of fishes occurrence			
Actions Taken or Planned to Address Data Limitations: Subsequent data collection will be timed in exactly the same season as baseline assessment			
Date of Future Data Quality Assessments: Year 3 and 5			
Procedures for Future Data Quality Assessments: Application of DQA checklist			
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING			
Data Analysis: Use of standard fish stock and MPA assessment methods			
Presentation of Data: Tables and graphs with narrative			
Review of Data: The review will be done by ECOFISH team			
Reporting of Data: The data will be reported in semi-annual and annual reports of the project			
OTHER NOTES			
Notes on Baselines/Targets: The baseline number of this indicator is to be determined through the application of the sampling survey			
PERFORMANCE INDICATOR VALUES			
Year	**Target**	**Actual**	**Notes**
1	--		
2	--		
3	5		
4	--		
5	10		
LOP	10		
THIS SHEET LAST UPDATED ON: 28 March 2013			

Performance Indicator Reference Sheet No. 2

USAID Development Objective: Natural resources and environmental services improved
ECOFISH Objective: Improved management of important coastal and marine resources and associated ecosystems that support local economies
Key Result B: A 10% increase in the number of people gaining employment or better employment from sustainable fisheries management from a baseline established at the start of the project
Name of Indicator: Percentage increase in the number of people gaining employment or better employment in the focal areas across the eight MKBAs relative to baseline using socio-economic methods
Geographic Focus: Clusters of LGUs representing the focal areas across the eight MKBA
Is this an Annual Report indicator? Yes
DESCRIPTION
Precise Definition(s): Measurement will be based on a combination of parameters including household incomes, household expenditures, resource uses, and employment. The details are described in the ECOFISH Baseline Assessment Plan.
Unit of Measure: Percent
Method of Calculation: Analysis of sample survey data
Disaggregated by: Gender, household, fisheries sub-sector/type of job
Justification & Management Utility: Employment generation and job upgrading are critical elements of this program and as the fishing industry becomes more sustainable, more and better jobs should result
PLAN FOR DATA ACQUISITION BY USAID
Data collection method: Sample survey
Data Source: Survey
Method of data acquisition by USAID: Review of annual reports
Frequency and timing of data acquisition by USAID: Years 1, 3 and 5
Estimated cost of data acquisition: TBD
Individual responsible at USAID: COR
Individual responsible for providing data to USAID: COP
Location of Data Storage: Project MIS
DATA QUALITY ISSUES
Date of Initial Data Quality Assessment: At time of baseline survey
Known Data Limitations and Significance (if any): Sampling surveys all have some level of margin of error
Actions Taken or Planned to Address Data Limitations: Survey pre-tests/Spot checks on administering of survey questionnaire/data cleaning procedure
Date of Future Data Quality Assessments: Years 3 and 5
Procedures for Future Data Quality Assessments: Application of DQA checklist
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING
Data Analysis: Statistical package for the social sciences or equivalent
Presentation of Data: Tables and graphs with narrative
Review of Data: The review will be done by ECOFISH team
Reporting of Data: The data will be reported in semi-annual and annual reports of the project
OTHER NOTES
Notes on Baselines/Targets: The baseline number of this indicator is to be determined through the application of the sampling survey
PERFORMANCE INDICATOR VALUES

Year	Target	Actual	Notes
1	--		
2	--		
3	5		
4	--		
5	10		
LOP	10		

THIS SHEET LAST UPDATED ON: 28 March 2013

Performance Indicator Reference Sheet No. 3

USAID Development Objective: Natural resources and environmental services improved

ECOFISH Objective: Improved management of important coastal and marine resources and associated ecosystems that support local economies

Key Result C: Establishment of a national capacity development program to enhance the capacities of LGUs and relevant national agencies to apply ecosystem-based approaches to fisheries management

Name of Indicator: Number of training programs conducted

Geographic Focus: National, regional, provincial, local municipal governments comprising the eight MKBAs

Is this an Annual Report indicator? Yes

DESCRIPTION

Precise Definition(s): A training program is a distinct training package tailored to different types and levels of government officials, as well as staff of non-governmental organizations, academic institutions and other implementation partners, aimed at developing capacity to apply ecosystems approaches to fisheries management

Unit of Measure: Number

Method of Calculation: ECOFISH tracks training programs and activities as part of project workflow

Disaggregated by: Type of training program, geographic location, government agency, organizational affiliation

Justification & Management Utility: Training as an integral part of capacity building is a key intended result of the project

PLAN FOR DATA ACQUISITION BY USAID

Data collection method: Extraction of training enrollment records from project MIS

Data Source: Project training program records or training reports

Method of data acquisition by USAID: Review of semi-annual and annual reports

Frequency and timing of data acquisition by USAID: Semi-annual and annual

Estimated cost of data acquisition: Cost is absorbed by project administration

Individual responsible at USAID: COR

Individual responsible for providing data to USAID: COP

Location of Data Storage: Project MIS

DATA QUALITY ISSUES

Date of Initial Data Quality Assessment: Year 2

Known Data Limitations and Significance (if any): Number of training programs do not guarantee increase in capacity of partners to apply ecosystems approach to fisheries management

Actions Taken or Planned to Address Data Limitations: Capacity building measurement such EAFM benchmarking and institutionalization of resource management initiatives will be conducted as part of project monitoring tools

Date of Future Data Quality Assessments: Years 3, 4 and 5

Procedures for Future Data Quality Assessments: Application of DQA checklist

PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING

Data Analysis: Tabulation and sorting of types of trainings conducted

Presentation of Data: Tables with narrative

Review of Data: The review will be done by ECOFISH team

Reporting of Data: The data will be reported in semi-annual and annual reports of the project.

OTHER NOTES

Notes on Baselines/Targets: The baseline value of this indicator is 0.

PERFORMANCE INDICATOR VALUES

Year	Target	Actual	Notes
1	20		
2	30		
3	40		
4	30		
5	--		
LOP	120		

THIS SHEET LAST UPDATED ON: 28 March 2013

Performance Indicator Reference Sheet No. 4

USAID Development Objective: Natural resources and environmental services improved
ECOFISH Objective: Improved management of important coastal and marine resources and associated ecosystems that support local economies
Key Result C: Establishment of a national capacity development program to enhance the capacities of LGUs and relevant national agencies to apply ecosystem-based approaches to fisheries management
Name of Indicator: Number of persons trained in ecosystem-based approaches (national, regional and local)
Geographic Focus: National, regional, provincial, and local municipal governments comprising the eight MKBAs and Manila
Is this an Annual Report indicator? Yes
DESCRIPTION
Precise Definition(s): It is a proxy measure of the capacities of LGUs and relevant national agencies to apply ecosystem-based approaches to fisheries management through trainings and capacity building activities.
Unit of Measure: Number
Method of Calculation: Tracking and tabulation of participants in ECOFISH training programs
Disaggregated by: Type of training, gender, geographic location, government agency, organizational affiliation
Justification & Management Utility: Training as an integral part of capacity building is a key intended result of the project
PLAN FOR DATA ACQUISITION BY USAID
Data collection method: Extraction of training enrollment records from project MIS
Data Source: Training enrollment records and training reports
Method of data acquisition by USAID: Review of semi-annual and annual reports
Frequency and timing of data acquisition by USAID: Semi-annual and annual
Estimated cost of data acquisition: Cost is absorbed by project administration
Individual responsible at USAID: COR
Individual responsible for providing data to USAID: COP
Location of Data Storage: Project MIS
DATA QUALITY ISSUES
Date of Initial Data Quality Assessment: Year 2
Known Data Limitations and Significance (if any): Number of persons trained do not guarantee increase in capacity of partners to apply ecosystems approach to fisheries management
Actions Taken or Planned to Address Data Limitations: Capacity building measurement such EAFM benchmarking and institutionalization of resource management initiatives will be conducted as part of project monitoring tools
Date of Future Data Quality Assessments: Years 3, 4 and 5
Procedures for Future Data Quality Assessments: Application of DQA checklist
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING
Data Analysis: Tabulation and sorting of individuals trained, types of training, gender, geographic location, government agency, organizational affiliation
Presentation of Data: Tables with narrative
Review of Data: The review will be done by ECOFISH team
Reporting of Data: The data will be reported in semi-annual and annual reports of the project.
OTHER NOTES
Notes on Baselines/Targets: The baseline number of this indicator is 0.
PERFORMANCE INDICATOR VALUES

Year	Target	Actual	Notes
1	300		
2	450		
3	600		
4	450		
5	--		
LOP	1800		

THIS SHEET LAST UPDATED ON: 28 March 2013

Performance Indicator Reference Sheet No. 5

USAID Development Objective: Natural resources and environmental services improved

ECOFISH Objective: Improved management of important coastal and marine resources and associated ecosystems that support local economies

Key Result C: Establishment of a national capacity development program to enhance the capacities of LGUs and relevant national agencies to apply ecosystem-based approaches to fisheries management

Name of Indicator: Number of person-hours of training on EAFM, MPA, and CCA (national, regional and local) [FACTS 4.8.1-29: Number of person hours of training in natural resources management and/or biodiversity conservation supported by USG assistance]

Geographic Focus: National, provincial, municipal

Is this an Annual Report indicator? Yes

DESCRIPTION

Precise Definition(s): Measures the technical assistance of ECOFISH and sub-contractors in terms of the number of person-hours partners at the national, provincial, local levels are trained in EAFM, MPA, CCA and other natural resource management or marine biodiversity conservation initiatives.

Unit of Measure: Number of person-hours

Method of Calculation: Tracking and tabulation of participants in ECOFISH training programs

Disaggregated by: Type of training, gender, geographic location, government agency, organizational affiliation

Justification & Management Utility: The role of technical assistance in ECOFISH is one of the key approaches to achieving intended result of the project

PLAN FOR DATA ACQUISITION BY USAID

Data collection method: Extraction of training enrollment records from project MIS

Data Source: Training enrollment records, training reports, subcontract reports, administrative records

Method of data acquisition by USAID: Review of semi-annual and annual reports

Frequency and timing of data acquisition by USAID: Semi-annual and annual

Estimated cost of data acquisition: Cost is absorbed by project administration

Individual responsible at USAID: COR

Individual responsible for providing data to USAID: COP

Location of Data Storage: Project MIS

DATA QUALITY ISSUES

Date of Initial Data Quality Assessment: Year 2

Known Data Limitations and Significance (if any): None

Actions Taken or Planned to Address Data Limitations: None

Date of Future Data Quality Assessments: Years 3, 4 and 5

Procedures for Future Data Quality Assessments: Application of DQA checklist

PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING

Data Analysis: Tabulation and sorting by training or technical assistance, gender, geographic location, government agency, organizational affiliation.

Presentation of Data: Tables with narrative

Review of Data: The review will be done ECOFISH COP

Reporting of Data: The data will be reported in semi-annual and annual reports of the project.

OTHER NOTES

Notes on Baselines/Targets: The baseline number of this indicator is 0

PERFORMANCE INDICATOR VALUES

Year	Target	Actual	Notes
1	4,800		
2	7,200		
3	9,600		
4	7,200		
5	--		
LOP	28,800		

THIS SHEET LAST UPDATED ON: 28 March 2013

Performance Indicator Reference Sheet No. 6

USAID Development Objective: Natural resources and environmental services improved

ECOFISH Objective: Improved management of important coastal and marine resources and associated ecosystems that support local economies

Key Result C: Establishment of a national capacity development program to enhance the capacities of LGUs and relevant national agencies to apply ecosystem-based approaches to fisheries management

Name of Indicator: Number of policy studies on Ecosystems Approach to Fisheries Management, Marine Protected Areas, and Climate Change Adaptation
(FACTS: Number of laws, policies, strategies, plans, agreements, or regulations addressing climate change and/or biodiversity conservation formally proposed, adopted, or implemented as a result of USG assistance)

Geographic Focus: National, provincial, municipal

Is this an Annual Report indicator? Yes

DESCRIPTION

Precise Definition(s): Measures all government legal instruments (policies, laws, regulations, ordinances, etc.) designed as enabling measures to implement ecosystem approaches to fisheries management

Unit of Measure: Number

Method of Calculation: Tracking and tabulation of all local, provincial and national legal instruments aimed at improved fisheries management

Disaggregated by: National, provincial, municipal instruments, type (policy, law, regulation, administrative order, ordinance)

Justification & Management Utility: The establishment of policies on EAFM, MPA and CCA is key in sustaining the interventions developed by the project

PLAN FOR DATA ACQUISITION BY USAID

Data collection method: Collection of copies of policies, administrative orders, laws, regulations, ordinances from BFAR and other relevant national agencies and partner LGUs

Data Source: LGU legislative offices, national agency policy and planning offices

Method of data acquisition by USAID: Review of semi-annual, annual reports, and project records

Frequency and timing of data acquisition by USAID: Semi-annual and annual

Estimated cost of data acquisition: Cost is absorbed by project administration

Individual responsible at USAID: COR

Individual responsible for providing data to USAID: COP

Location of Data Storage: Project MIS

DATA QUALITY ISSUES

Date of Initial Data Quality Assessment: Year 2

Known Data Limitations and Significance (if any): None

Actions Taken or Planned to Address Data Limitations: None

Date of Future Data Quality Assessments: Years 3, 4 and 5

Procedures for Future Data Quality Assessments: Application of DQA checklist

PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING

Data Analysis: Tabulation by type of law, regulation or application, geographic location, government agency,

Presentation of Data: Tables with narrative

Review of Data: The review will be done by ECOFISH

Reporting of Data: The data will be reported in semi-annual and annual reports of the project

OTHER NOTES

Notes on Baselines/Targets: The baseline number of this indicator is 0

PERFORMANCE INDICATOR VALUES

Year	Target	Actual	Notes
1	0		
2	2		
3	3		
4	3		
5	--		
LOP	8		

THIS SHEET LAST UPDATED ON: 28 March 2013

Performance Indicator Reference Sheet No. 7

USAID Development Objective: Natural resources and environmental services improved			
ECOFISH Objective: Improved management of important coastal and marine resources and associated ecosystems that support local economies			
Key Result D: Eight public-private partnerships supporting the objectives of the ECOFISH project created and operating			
Name of Indicator: Number of strategic partnerships formally established and operating			
Geographic Focus: National, provincial, municipal			
Is this an Annual Report indicator? Yes			
DESCRIPTION			
Precise Definition(s): Measures the number of strategic partnerships formed under ECOFISH to support EAFM and employment objectives			
Unit of Measure: Number of Memorandum of Understanding (MOU) signed and implemented			
Method of Calculation: Tracking and tabulation MOUs			
Disaggregated by: National, MKBA, province, municipality			
Justification & Management Utility: PPPs formed under this project are intended to fulfill both economic and biophysical objectives of ECOFISH			
PLAN FOR DATA ACQUISITION BY USAID			
Data collection method: Collection MOUs signed,			
Data Source: Project files, MOUs signed			
Method of data acquisition by USAID: Review of semi-annual, annual reports, and project records			
Frequency and timing of data acquisition by USAID: Semi-annual and annual			
Estimated cost of data acquisition: Cost is absorbed by project administration			
Individual responsible at USAID: COR			
Individual responsible for providing data to USAID: COP			
Location of Data Storage: Project MIS			
DATA QUALITY ISSUES			
Date of Initial Data Quality Assessment: Year 3			
Known Data Limitations and Significance (if any): None			
Actions Taken or Planned to Address Data Limitations: None			
Date of Future Data Quality Assessments: Year 4 and 5			
Procedures for Future Data Quality Assessments: Application of DQA checklist			
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING			
Data Analysis: Simple tabulation from project records			
Presentation of Data: Tables with narrative, summary of MOU contents			
Review of Data: The review will be done by ECOFISH team			
Reporting of Data: The data will be reported in semi-annual and annual reports of the project			
OTHER NOTES			
Notes on Baselines/Targets: The baseline number of this indicator is 0			
PERFORMANCE INDICATOR VALUES			
Year	**Target** (cumulative)	**Actual**	**Notes**
1	2		
2	4		
3	6		
4	8		
5	--		
LOP	8		
THIS SHEET LAST UPDATED ON: 28 March 2013			

Performance Indicator Reference Sheet No. 8

USAID Development Objective: Natural resources and environmental services improved
ECOFISH Objective: Improved management of important coastal and marine resources and associated ecosystems that support local economies
Key Result D: Eight public-private partnerships supporting the objectives of the ECOFISH project created and operating
Name of Indicator: Number of community partnerships actively engaged and mobilized
Geographic Focus: MKBA, provincial, municipal
Is this an Annual Report indicator? Yes
DESCRIPTION
Precise Definition(s): Measures the number of community partnerships formed under ECOFISH to support EAFM and employment objectives
Unit of Measure: Number of letters of commitment signed and submitted by community stakeholder groups
Method of Calculation: Tracking and tabulation of letters of commitments
Disaggregated by: MKBA, province, municipality, source, purpose of investment
Justification & Management Utility: PPPs formed under this project are intended to fulfill both economic and biophysical objectives of ECOFISH
PLAN FOR DATA ACQUISITION BY USAID
Data collection method: Collection of signed letters of commitment
Data Source: Project files, submitted letters of commitment
Method of data acquisition by USAID: Review of semi-annual, annual reports, and project records
Frequency and timing of data acquisition by USAID: Semi-annual and annual
Estimated cost of data acquisition: Cost absorbed into project administration
Individual responsible at USAID: COR
Individual responsible for providing data to USAID: COP
Location of Data Storage: Project MIS
DATA QUALITY ISSUES
Date of Initial Data Quality Assessment: Year 3
Known Data Limitations and Significance (if any): None
Actions Taken or Planned to Address Data Limitations: None
Date of Future Data Quality Assessments: Years 4 and 5
Procedures for Future Data Quality Assessments: Application of DQA checklist
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING
Data Analysis: Simple tabulation from project records.
Presentation of Data: Tables with narrative, summary of the nature of commitment and community stakeholder groups actively engaged and mobilized
Review of Data: The review will be done by ECOFISH team
Reporting of Data: The data will be reported in semi-annual and annual reports of the project
OTHER NOTES
Notes on Baselines/Targets: The baseline number of this indicator is 0
PERFORMANCE INDICATOR VALUES

Year	**Target** (cumulative)	**Actual**	**Notes**
1	10		
2	40		
3	60		
4	100		
5	--		
LOP	100		

THIS SHEET LAST UPDATED ON: 28 March 2013

Performance Indicator Reference Sheet No. 9

USAID Development Objective: Natural resources and environmental services improved			
ECOFISH Objective: Improved management of important coastal and marine resources and associated ecosystems that support local economies			
Key Result E: One million hectares of municipal marine waters under improved management			
Name of Indicator: Number of hectares of municipal water under improved management (fisheries management plan, species or gear regulations, registration and licensing, and enforcement team in place) - cumulative (FACTS 4.8.1-26: Number of hectares of biological significance and/or natural resources under improved natural resource management as a result of USG assistance)			
Geographic Focus: MKBA, waters of cluster of municipalities, municipal waters			
Is this an Annual Report indicator? Yes			
DESCRIPTION			
Precise Definition(s): Hectares of municipal waters that have achieve EAFM benchmark level 1			
Unit of Measure: Number of hectares			
Method of Calculation: Mapping techniques, GIS technologies			
Disaggregated by: MKBA, cluster of municipalities, municipality			
Justification & Management Utility: This measurement is one of the most critical to the objective of improved management of coastal and fisheries resources			
PLAN FOR DATA ACQUISITION BY USAID			
Data collection method: Collection of coastal and fisheries resources management intervention documents and GIS data to estimate municipal waters of municipalities and cluster of municipalities			
Data Source: LGUs and project records, NAMRIA			
Method of data acquisition by USAID: Review of semi-annual, annual reports, and project records			
Frequency and timing of data acquisition by USAID: Semi-annual and annual			
Estimated cost of data acquisition: Cost is absorbed by project administration			
Individual responsible at USAID: COR			
Individual responsible for providing data to USAID: COP			
Location of Data Storage: Project MIS			
DATA QUALITY ISSUES			
Date of Initial Data Quality Assessment: Year 2			
Known Data Limitations and Significance (if any): None			
Actions Taken or Planned to Address Data Limitations: None			
Date of Future Data Quality Assessments: Years 3, 4 and 5			
Procedures for Future Data Quality Assessments: Application of DQA checklist			
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING			
Data Analysis: Review of coastal and fisheries resources management intervention documents and estimation of areas using GIS			
Presentation of Data: Tables, figures with narrative and GIS Maps			
Review of Data: The review will be done by ECOFISH team in cooperation with LGUs			
Reporting of Data: The data will be reported in semi-annual and annual reports of the project			
OTHER NOTES			
Notes on Baselines/Targets: The baseline number of this indicator is 0			
PERFORMANCE INDICATOR VALUES			
Year	**Target**	**Actual**	**Notes**
1	200,000		
2	450,000		
3	800,000		
4	--		
5	1,000,000		
LOP	1,000,000		
THIS SHEET LAST UPDATED ON: 28 March 2013			

Performance Indicator Reference Sheet No. 10

USAID Development Objective: Natural resources and environmental services improved

ECOFISH Objective: Improved management of important coastal and marine resources and associated ecosystems that support local economies

Key Result E: One million hectares of municipal marine waters under improved management

Name of Indicator: Number of hectares of MPAs under the MPA network established and implemented (FACTS 4.8.1-26: Number of hectares of biological significance and/or natural resources under improved natural resource management as a result of USG assistance)

Geographic Focus: MKBA, waters of cluster of municipalities, municipal waters

Is this an Annual Report indicator? Yes

DESCRIPTION

Precise Definition(s): Networks of MPAs refer to a set of individual MPAs established to comprise a network that are spatially connected to each other through water current systems and the individual MPAs are dependent on each other through their functions either as source or sink or both

Unit of Measure: Number of hectares

Method of Calculation: Mapping techniques, GIS technologies

Disaggregated by: MKBA, cluster of municipalities, municipality

Justification & Management Utility: Networking of MPAs is important in ensuring the success each individual MPA in the system. Establishing a network system of MPAs will enhance the productivity of individual MPAs

PLAN FOR DATA ACQUISITION BY USAID

Data collection method: Collection of MPA management effectiveness ratings and GIS data of individual MPAs that comprise the network to estimate hectares of MPAs

Data Source: LGUs, MPA Support Network (MSN) database**,** project records on MPAs

Method of data acquisition by USAID: Review of semi-annual, annual reports, and project records

Frequency and timing of data acquisition by USAID: Semi-annual and annual

Estimated cost of data acquisition: Cost is absorbed by project administration

Individual responsible at USAID: COR

Individual responsible for providing data to USAID: COP

Location of Data Storage: Project MIS

DATA QUALITY ISSUES

Date of Initial Data Quality Assessment: Year 2

Known Data Limitations and Significance (if any): None

Actions Taken or Planned to Address Data Limitations: None

Date of Future Data Quality Assessments: Years 3, 4 and 5

Procedures for Future Data Quality Assessments: Application of DQA checklist

PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING

Data Analysis: Review of MPA management effectiveness ratings and GIS data of MPAs and estimation hectares of MPAs that comprise the network

Presentation of Data: Tables, figures with narrative and GIS Maps

Review of Data: The review will be done by ECOFISH team in cooperation with LGUs

Reporting of Data: The data will be reported in semi-annual and annual reports of the project

OTHER NOTES

Notes on Baselines/Targets: The baseline number of this indicator is 0

PERFORMANCE INDICATOR VALUES

Year	**Target** (cumulative)	**Actual**	**Notes**
1	--		
2	64		
3	192		
4	320		
5	--		
LOP	320		

THIS SHEET LAST UPDATED ON: 28 March 2013

Performance Indicator Reference Sheet No. 11

USAID Development Objective: Natural resources and environmental services improved

ECOFISH Objective: Improved management of important coastal and marine resources and associated ecosystems that support local economies

Key Result F: A core of 30 LGUs across the eight MKBAs with improved capacity for implementing ecosystem approaches to fisheries management

Name of Indicator: Number of inter-LGU fisheries management plans developed

Geographic Focus: MKBAs, clusters of municipalities

Is this an Annual Report indicator? Yes

DESCRIPTION

Precise Definition(s): Measures the number of fisheries management plans specifically aimed to link LGUs into larger, more comprehensive management entities or Inter-LGU alliances within MKBAs

Unit of Measure: Number

Method of Calculation: Tracking and tabulation

Disaggregated by: MKBA, inter-LGU

Justification & Management Utility: These inter-LGU fisheries management plans reflect the compatibility between the ecosystem and governance scales that can effect greater management efficiency, better coordination among municipalities, and lower the cost of management and enforcement initiatives.

PLAN FOR DATA ACQUISITION BY USAID

Data collection method: Review LGU and inter-LGU documents and project records

Data Source: LGU and inter-LGU documents and project records

Method of data acquisition by USAID: Review of semi-annual, annual reports, and project records

Frequency and timing of data acquisition by USAID: Semi-annual and annual

Estimated cost of data acquisition: Cost is absorbed by project administration

Individual responsible at USAID: COR

Individual responsible for providing data to USAID: COP

Location of Data Storage: Project MIS

DATA QUALITY ISSUES

Date of Initial Data Quality Assessment: Year 3

Known Data Limitations and Significance (if any): None

Actions Taken or Planned to Address Data Limitations: None

Date of Future Data Quality Assessments: Years 4 and 5

Procedures for Future Data Quality Assessments: Application of DQA checklist

PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING

Data Analysis: Review and evaluation of inter-LGU management plans

Presentation of Data: Tables with narrative

Review of Data: The review will be done by ECOFISH team

Reporting of Data: The data will be reported in semi-annual and annual reports of the project

OTHER NOTES

Notes on Baselines/Targets: The baseline number of this indicator is 0

PERFORMANCE INDICATOR VALUES

Year	Target	Actual	Notes
1	--		
2	2 MKBAs		
3	2 MKBAs		
4	2 MKBAs		
5	2 MKBAs		
LOP	8		

THIS SHEET LAST UPDATED ON: 28 March 2013

Performance Indicator Reference Sheet No. 12

USAID Development Objective: Natural resources and environmental services improved
ECOFISH Objective: Improved management of important coastal and marine resources and associated ecosystems that support local economies
Key Result F: A core of 30 LGUs across the eight MKBAs with improved capacity for implementing ecosystem approaches to fisheries management
Name of Indicator: Number of LGUs that have achieved EAFM average benchmark level 2 or higher
Geographic Focus: MBKAs, clusters of municipalities
Is this an Annual Report indicator? Yes
DESCRIPTION
Precise Definition(s): This is a measure of the improvement of capacity of LGUs across the eight MKBAs to implement ecosystem approaches to fisheries management. This will utilize the EAFM benchmarking tool developed during the FISH Project (Appendix 2). The levels, with some modifications, follow the orders of governance outcomes described in Olsen (2003) wherein each level corresponds to the order of governance.
Unit of Measure: Individual score, and average of scores.
Method of Calculation: Tabulation of scores
Disaggregated by: LGU
Justification & Management Utility: Local capacity to apply ecosystem approaches to fisheries management is the core approach used by ECOFISH in implementing fisheries management with partners
PL`AN FOR DATA ACQUISITION BY USAID
Data collection method: Self-scoring of progress in capacity to manage and implement the basic fisheries management functions. LGU administrator and agricultural officer should be included in assessment process. It is an annual assessment
Data Source: LGU and Inter-LGU documents, LGU executive office, municipal agriculture office
Method of data acquisition by USAID: : Review of semi-annual, annual reports, and project records
Frequency and timing of data acquisition by USAID: Semi-annual and annual
Estimated cost of data acquisition: Cost is absorbed by project administration
Individual responsible at USAID: COR
Individual responsible for providing data to USAID: COP
Location of Data Storage: Project MIS
DATA QUALITY ISSUES
Date of Initial Data Quality Assessment: Year 2
Known Data Limitations and Significance (if any): Self-scoring may result in some biasing of scores
Actions Taken or Planned to Address Data Limitations: The exercise will be supported by an ECOFISH staff who will guide the scorer through the exercise and help ground truth the assessment
Date of Future Data Quality Assessments: Years 3, 4 and 5
Procedures for Future Data Quality Assessments: Application of DQA checklist
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING
Data Analysis: Tabulation of individual scores, calculating the mean and tabulating the LGUs achieving EAFM benchmark 2 or higher.
Presentation of Data: Tables with narrative
Review of Data: The review will be done by ECOFISH team
Reporting of Data: The data will be reported in semi-annual and annual reports of the project
OTHER NOTES
Notes on Baselines/Targets: The baseline number of this indicator is to be determined in Year 1.
PERFORMANCE INDICATOR VALUES

Year	**Target** (cumulative)	**Actual**	**Notes**
1	-- (baseline)		
2	10		
3	20		
4	30		
5	42		
LOP	42		

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Appendix 2. EAFM Benchmarking for LGUs in the ECOFISH MKBAs

EAFM Benchmarking for LGUs in the ECOFISH MKBAs

EAFM as a process has already been practiced in the region. In the East Asia region as a whole, management of fisheries has been attempted at various ecological scales such as large marine ecosystems (LMEs), bays, gulfs, and other spatially defined seas. In many instances, specific fish or invertebrate species in these ecological scales have been the focus of management but due to the multi-species and multi-gear nature of fisheries the management approach has always been on multi-species scale. What have been lacking are the understanding of the interaction among the various components of the ecosystem that could have been a crucial input to management interventions and the establishment of a governance system or at least effective institutional mechanisms that implement management interventions.

As an ecosystem approach, EAFM tends to be complex. To make it workable, it is best for it to be disaggregated into its practical elements with corresponding expected results. At the national level, EAFM activities may only be limited to policy formulation, enactment of laws, or agreements on number and areas of geographies subject to fisheries management. At the site level, however, EAFM activities and expected results can be more specific. Below is a set of recommended generic results at the LGU and clusters of LGUs used during the FISH Project that can also be applied by ECOFISH.

1. Delineated ecosystem boundaries that reflect institutional and political elements to manage the ecosystem as one management unit
2. Determined the habitat need of important harvestable organisms that constitute the "significant food web".
3. Incremental understanding of the components of ecosystem and the dynamics of the entire ecosystem
4. Developed and set in place a functioning network of MPAs.
5. Developed indices of ecosystems' health as targets for management
6. Assessed of how removals affect the stock size, harvest, and trophic structure and gradually achieve an appropriate overall fishing effort restrictions or configuration.
7. Assessed institutional elements of the ecosystem which most significantly affect fisheries and developed appropriate institutional mechanisms to effectively implement management interventions
8. Developed and implemented of strategies such as management planning, zoning schemes, gear/species-specific management, registration & licensing, law enforcement, and temporal and permanent no take zones.
9. Established governance system that is responsive to ecosystems approach (it should cover the boundary, scale and scope of the fishery system)
10. Developed and instituted monitoring schemes used for fisheries management

These generic results were used as guide in developing specific benchmarks that cover as many EAFM elements as possible. This benchmarking follows the system developed by CRMP's monitoring and evaluation guidelines for municipal/city CRM (DENR-CMMO 2003) and the proposed template for the development of a municipal fisheries management benchmarking system in the Philippines (FISH Project, 2010). The levels of the benchmarking system follow the orders of governance outcomes described in Olsen (2003) wherein each level corresponds to the order of governance. Only in this case, levels 3 and 4 were lumped together. Each level is likewise considered a building block to subsequent levels.

The purpose of setting the benchmarks is to provide a framework to guide priority geography implementors, particularly the fisheries managers, in effectively implementing EAFM programs primarily by providing guideposts for the various stages of their implementation. The benchmarks are subdivided into two major groups: (A) Basic requirement and (B) Site specific requirement. The first (A) covers the basic requirement and can be implemented across all priority geography sites, and the second (B) are site specific and may only be carried out in specific priority geographies. The EAFM Benchmarks are given in table below (Table 1) followed by the detailed benchmarks description at various levels of implementation (Table 2).

Appendix Table 2.1. EAFM Benchmarks

	Benchmark	Level 1 Programs Established	Level 2 Programs Functional	Level 3 Programs Sustained and Results Realized
A. Basic Requirement				
1	Ecosystem boundaries established	Ecosystem boundaries drawn and established	Formal agreement on ecosystem boundaries	Ecosystem boundaries legally recognized by the national government
2	Coastal marine habitat monitoring and management planning established	Coastal marine habitat baseline assessment conducted and habitat profile developed	Coastal marine habitat monitoring conducted regularly and feedback to stakeholders and resource users	Results of coastal marine habitat monitoring used in formulation of marine habitat management actions
3	Fisheries monitoring and early fisheries management planning established	Fisheries baseline assessment conducted and fisheries profile developed	Fisheries monitoring conducted regularly and feedback to stakeholders and resource users	Results of monitoring used in formulation of fisheries management plans and actions
4	Fisheries Law enforcement team and program established	Fisheries law enforcement team and law enforcement program established	Fisheries enforcement operations regularly conducted and enforcement database established	Fisheries enforcement operations sustained and enforcement effectiveness evaluated Collaborative enforcement with other participating local governments conducted (e.g. joint enforcement)
5	Comprehensive fisheries management plan conducted and regularly updated	Comprehensive fisheries management plan developed and adopted	Comprehensive fisheries management plan implemented (with corresponding legal and policy instrument) and programs in the plan continuously funded	Fisheries management plan revised or updated based on the monitoring results
6	Fisheries management office established and operational	Fisheries management office in each local participating government established with corresponding mandate and staff	Coordination among offices within the local government, institutional partners, and other participating local governments established	Leveraging support of programs with institutional partners and collaborative endeavors with participating local governments within the ecosystem boundary established.
7	Fisheries registration and licensing system established	Fishers, boats and fishing gears registration and licensing system established	Fishers, boats, and fishing gears registration and licensing system implemented and enforced	Fishers, boats, and fishing gears registration and licensing system implementation sustained and information from the database for fishing effort control and regulations

8	Network of Marine Protected Areas (MPA) established	Individual MPA or MPAs established, baseline data collected, MPA management plan implemented, and monitoring system established	Individual MPA or MPAs sustained and MPA network arrangements established	MPA network arrangements implemented, enforced and sustained
9	Fisheries use zoning plan established	Fisheries and other uses identified and zoning plan developed	Fisheries use zoning plan implemented (with corresponding legal or policy instrument) and monitored	Fisheries use zoning plan improved, sustained and objectives attained (e.g. conflict reduced)
10	Local constituencies for fisheries management organized and actively involved	Local constituencies for fisheries management organized	Local constituencies for fisheries management actively participated in program development and implementation	Local constituencies for fisheries management sustained and expanded
11	Multi-institutional collaboration on coastal and fisheries resources management (CFRM)	Multi-institutional collaboration on CFRM established	Multi-institutional collaboration on CFRM effectively implemented programs and services	Multi-institutional collaboration on CFRM sustained and showing positive impacts
B. Site specific requirements				
12	Species-specific management measures established	Species that constitute the "significant food web" identified and baseline assessment conducted	Species-specific management measures developed, enforced and monitored	Species-specific management measure sustained and monitoring results show impacts
13	Gear-specific management measures established	Gear-specific management measure identified and baseline assessment conducted	Gear-specific management measures developed, enforced and monitored	Gear-specific management measure sustained and monitoring results show impacts
14	Mangrove management area established	Mangrove management area established and baseline data collected	Mangrove management plan developed, implemented and monitoring system established	Mangrove management sustained and monitoring results show impacts
15	Seagrass management area established	Seagrass management area established and baseline data collected	Seagrass management plan developed, implemented and monitoring system established	Seagrass management sustained and monitoring results show impacts
16	Revenue generation established	Revenue generation system on CRM/fisheries management initiated	Revenue-generating measures effectively implemented and enforced	Revenue-generating measures sustained showing positive impacts
17	Coastal environment-friendly enterprises established	Coastal environment-friendly enterprises initiated	Successful coastal environment-friendly enterprises expanded	Coastal environment-friendly enterprises sustained showing positive impacts

Appendix Table 2.2. Description of the EAFM benchmarks at various levels

	Benchmark	Benchmark Description
1	Ecosystem boundaries established	**Level 1**: Ecosystem boundaries drawn and established • Ecosystem boundaries drawn incorporating institutional and political consideration **Level 2**: Formal agreement on ecosystem boundaries • Ecosystem boundaries agreed upon by the participating local governments through a memorandum of agreement or other form of policy instrument **Level 3**: Ecosystem boundaries legally recognized by the national government • Ecosystem boundaries recognized by the national government as part of its Coral Triangle Initiative
2	Coastal marine habitat monitoring and management planning established	**Level 1:** Coastal marine habitat baseline assessment conducted and habitat profile developed • Marine habitat profile developed through compilation of secondary data and baseline assessment of the status of coral, seagrass, and mangrove habitats • Issues and opportunities pertaining to coastal habitats, socio-economic, governance and other related issues identified • Key indicators for habitat, socio-economic and governance aspects developed as part of the future monitoring and evaluation **Level 2:** Coastal marine habitat monitoring conducted regularly and feedback to stakeholders and resource users • Key habitat data collected analyzed and compared to baseline • Analyzed monitoring results presented to stakeholders and resource users **Level 3**: Results of coastal marine habitat monitoring used in formulation of marine habitat management plans and actions • Baseline and monitoring results analyzed and results used to formulate habitat management options • Habitat management options presented to stakeholders for formulation of habitat management plan or improvement of existing habitat management plan • Habitat management plans enacted
3	Fisheries monitoring and early fisheries management planning established	**Level 1:** Fisheries baseline assessment conducted and habitat profile developed • Fisheries profile developed through compilation of secondary data and baseline assessment of the status of fishery resources, fishers, and fishing effort (boats and gears) • Issues and opportunities pertaining to fisheries, socio-economic, governance and other related issues identified • Key indicators for fisheries, socio-economic and governance aspects developed as part of the future monitoring and evaluation **Level 2:** Fisheries (catch and effort) monitoring conducted regularly and feedback to stakeholders and resource users • Key fisheries data collected analyzed and compared to baseline • Analyzed monitoring results presented to stakeholders and resource users **Level 3**: Results of fisheries monitoring used in formulation of fisheries early action plans • Baseline and monitoring results analyzed and results used to formulate initial fisheries management options • Fisheries management options presented to stakeholders for formulation of specific fisheries management intervention or improvement of existing fisheries management interventions
4	Fisheries Law enforcement team and program established	**Level 1**: Fisheries law enforcement team and law enforcement program established • Members of the fisheries law enforcement identified, trained and deputized • Law enforcement program developed and funded • Law enforcement assets (boats, radios, GPS, etc. procured) **Level 2**: Fisheries enforcement operations regularly conducted and enforcement database established • Fisheries law enforcement operation planning (Oplan) regularly conducted • Results of enforcement operations documented in a form of data base • Coordination mechanism with agencies (police, navy, coast guard) having coastal and fisheries law enforcement mandates established **Level 3**: Fisheries law enforcement operations sustained and enforcement

		effectiveness evaluated. Collaborative enforcement with other participating local governments conducted • Fisheries law enforcement operations continuously funded • Training of fishery law enforcement team regularly updated • Effects of fisheries law enforcement evaluated and operations improved • Joint enforcement with other participating local governments conducted
5	Comprehensive fisheries management plan conducted and regularly updated	**Level 1**: Comprehensive fisheries management plandeveloped and adopted • Comprehensive fisheries management plan laid out programs and activities in response to issues identified in the baseline assessment and profile • Comprehensive fisheries management plan incorporates habitat management plans and early fisheries management plans • Draft comprehensive fisheries management plan presented to stakeholders **Level 2**: Comprehensive fisheries management plan implement and programs in the plan continuously funded • Comprehensive fisheries management plan adopted through enactment of enabling policy instrument or legislation (ordinance) • Programs and activities in the comprehensive fisheries management plan funded by the local governments **Level 3**: Fisheries management plan revised or updated based on the monitoring results • Comprehensive fisheries management plan reviewed, updated and revised following the results of the regular coastal marine habitat and fisheries (catch and effort) monitoring schemes • Programs and activities in the comprehensive fisheries management plan regularly funded
6	Fisheries management office established and operational	**Level 1**: Fisheries management office in each local participating government established with corresponding mandate and staff • Fisheries management office with mandate to implement and coordinate fisheries management activities established • Fisheries management office allocated with human and financial resources to perform mandated activities **Level 2**: Coordination among offices within the local government, institutional partners, and other participating local governments established • Staff of fisheries management office trained to effectively perform mandated activities • Linkages between fisheries management office, offices within the local government and institutional partners developed • Linkage between the fisheries management office and other participating local governments within the defined ecosystem established **Level 3**: Leveraging support of programs with institutional partners and collaborative endeavors with participating local governments within the ecosystem boundary established. • Fisheries management office able to leverage financial and services support of programs with institutional partners and other government agencies • Collaborative activities between the fisheries management office and other participating local governments in developing common fisheries management policies, common ordinance and joint management planning established
7	Fisheries registration and licensing system established	**Level 1**: Fishers, boats and fishing gears registration and licensing system established • Fishers, fishing boats, and fishing gear registration procedure established • Registration and licensing initiated • Fisheries registration and licensing data base developed **Level 2**: Fishers, boats, and fishing gears registration and licensing system implemented and enforced • Registration and licensing database functional and registration and licensing data stored and analyzed • Registration and licensing system fully functional **Level 3**: Fishers, boats, and fishing gears registration and licensing system implementation sustained and information from the database for fishing effort control and regulations • Database fully functional and information used to determine and monitor fishing effort • Fisheries and registration and licensing information used to revise and improve

		plans and policies on fisheries management.
8	Network of Marine Protected Area (MPA) established	**Level 1**: Individual MPA or MPAs established, baseline data collected, MPA management plan implemented, and monitoring system established • MPA site identified, boundaries delineated, zones (no-take and buffer zones) established • MPA baseline information (live hard coral cover, reef fish biomass, diversity, etc.) collected • MPA management plan and adopted (preferably supported by legal instrument), management body and enforcement team trained and organized • Enforcement protocol operational, enforcement infrastructure established and enforcement assets procured and utilized • Management body and enforcement team conducted regular implementation and enforcement activities with funding support from local government • MPA monitoring regularly conducted and compliance monitored **Level 2**: Individual MPA or MPAs sustained and MPA network arrangements established • Activities of the MPA Management body and enforcement team sustained • Implementation and enforcement activities funded by local governments • MPA monitoring sustained and impacts regularly presented to stakeholders • Components of the MPA network identified and MPA managers organized • Implementation and coordination arrangements established • Enforcement and monitoring protocols harmonized and agreed **Level 3**: MPA network arrangements implemented, enforced and sustained • MPA network management plan developed • Coordination meeting among MPA network management bodies regularly conducted • Programs in MPA network management plan implemented and funded • MPA bodies of members of the MPA network conduct collaborative MPA monitoring activities
9	Fisheries use zoning plan established	**Level 1**: Fisheries and other uses identified and zoning plan developed • Existing and potential municipal water uses identified and mapped, • Interaction among the various activities evaluated and conflicting uses identified and resolved • Proposed zonation map developed and regulatory mechanisms formulated **Level 2**: Fisheries use zoning plan implemented (with corresponding legal or policy instrument) and monitored • Fisheries use zoning plan presented to a broader stakeholder and resource users for approval • Enabling policy or zoning ordinance enacted and management and enforcement arrangement established **Level 3**: Fisheries use zoning plan improved, sustained and objectives attained (e.g. resource use conflict reduced) • Fisheries use zoning plan updated and revised • Implementation and enforcement zoning regulations sustained • Resource use conflict reduced
10	Local constituencies for fisheries management organized and actively involved	**Level 1**: Local constituencies for fisheries management organized • Fisheries management concerned organization formed **Level 2**: Local constituencies for fisheries management actively participated in program development and implementation • Fisheries management concerned organizations involved in policy formulation and review of management plan • Fisheries management concerned organization participated in program implementation and monitoring of results **Level 3**: Local constituencies for fisheries management sustained and expanded • Fisheries management concerned organizations actively lobby for the development of management measures and implementation of the programs in the fisheries management plan
11	Multi-institutional collaboration on coastal and fisheries resources management (CFRM)	**Level 1**: Multi-institutional collaboration on CFRM established • Potential partners from LGUs, NGAs, NGOs, academe, private sector and funding institutions identified • Potential arrangements among neighboring LGUs that form the ecosystem identified • MOAs and other instruments adopted through municipal legislative action or signed by collaborating partners and planning, implementation coordination and

		monitoring arrangements established **Level 2**: Multi-institutional collaboration on CFRM effectively implemented programs and services • Multi-institutional CFRM program identified and plans for their implementation drafted • Multi-institutional CFRM activities coordinated, implemented, enforced and monitored **Level 3**: Multi-institutional collaboration on CFRM sustained and showing positive impacts • Multi-institutional CFRM program implementation sustained with measurable positive impacts to collaborating LGUs and coastal communities • Multi-institutional collaborative mechanisms reviewed and improved contributing to effective management of coastal and fishery resources
12	Species-specific management measures established	**Level 1**: Species that constitute the "significant food web" identified and baseline assessment conducted • Economically important species that constitute to significant portion of the food web based on the fisheries profiling process identified • Focus group discussion to identify early and immediate management action for identified economically important species conducted • Baseline assessment of identified species conducted **Level 2**: Species-specific management measures developed, enforced and monitored • Species-specific management options for identified species drafted • Consultations on species-specific management options conducted • Selected species-specific management measure implemented (supported by legal instrument) • Fisheries monitoring protocol for identified species developed **Level 3**: Species-specific management measure sustained and monitoring results show impacts • Enforcement of species-specific management measure established and sustained • Fisheries monitoring of species-specific management intervention sustained and results regularly presented to stakeholders and resource users
13	Gear-specific management measures established	**Level 1**: Gear-specific management measure identified and baseline assessment conducted • Gear specific issues based on the fisheries profiling process identified • Focus group discussion to identify early and immediate management action for identified fishing gears conducted • Baseline assessment of identified fishing gears conducted **Level 2**: Gear-specific management measures developed, enforced and monitored • Gear-specific management options for identified fishing gears drafted • Consultations on fishing gear-specific management options conducted • Selected gear-specific management measure implemented (supported by legal instrument) • Fisheries monitoring protocol for identified fishing gears developed **Level 3**: Gear-specific management measure sustained and monitoring results show impacts • Enforcement of species-specific management measure established and sustained • Fisheries monitoring of gear-specific management intervention sustained and results regularly presented to stakeholders and resource users
14	Mangrove management area established	**Level 1**: Mangrove management area established and baseline data collected • Mangrove management site identified, boundaries delineated, zones (rehabilitation zones, aquasilviculture zones, etc.) established • Mangrove baseline information (mangrove species, mangrove cover, fish and invertebrate species, human activities) collected • Mangrove management plan and adopted (preferably supported by legal instrument), management body and enforcement team trained and organized **Level 2**: Mangrove management plan developed, implemented and monitoring system established • Enforcement protocol operational, enforcement infrastructure established and enforcement assets procured and utilized • Management body and enforcement team conducted regular implementation and enforcement activities with funding support from local government • Mangrove monitoring regularly conducted and compliance monitored **Level 3**: Mangrove management sustained and monitoring results show impacts

		• Activities of the mangrove management body and enforcement team sustained • Implementation and enforcement activities funded by local governments • Mangrove monitoring sustained and impacts regularly presented to stakeholders
15	Seagrass management area established	**Level 1**: Seagrass management area established and baseline data collected • Seagrass management sites identified, boundaries delineated, zones (rehabilitation zones, rabbitfish protection zones, etc.) established • Seagrass baseline information (seagrass species, seagrass cover, fish and invertebrate species, human activities) collected • Seagrass management plan and adopted (preferably supported by legal instrument), management body and enforcement team trained and organized **Level 2**: Seagrass management plan developed, implemented and monitoring system established • Enforcement protocol operational, enforcement infrastructure established and enforcement assets procured and utilized • Management body and enforcement team conducted regular implementation and enforcement activities with funding support from local government • Seagrass monitoring regularly conducted and compliance monitored **Level 3**: Seagrass management sustained and monitoring results show impacts • Activities of the mangrove management body and enforcement team sustained • Implementation and enforcement activities funded by local governments • Seagrass monitoring sustained and impacts regularly presented to stakeholders
16	Revenue generation established	**Level 1**: Revenue generation system on CRM/fisheries management established • Potential revenue-generating coastal and fishery management programs assessed and identified • Revenue-collection program established with clear purpose and implementation arrangements of how the funds will be used in coastal and fisheries management activities • Specific-revenue ordinance enacted, or revenue clause (indicating use of funds) should be part of enacted fishery ordinance **Level 2**: Revenue-generating measures effectively implemented and enforced • Revenue-collection program implemented and compliance monitoring activities conducted • Revenues collected monitored, and program implementation evaluated and modified/adjusted if necessary **Level 3**: Revenue-generating measures sustained showing positive impacts • Revenue-collection program sustained implementation of revenue-generating measures • Revenue collection program and schemes for their use in the fisheries management program are already established components of the local government's Annual Investment Plan Revenues from fisheries related interventions are plowed back to fisheries management activities
17	Coastal environment-friendly enterprises established	**Level 1**: Coastal environment-friendly enterprises initiated • Non-fishing livelihoods, low-impact mariculture, ecotourism established for fisherfolk/coastal communities to augment incomes • Involvement and management arrangement defined • Socio-economic baseline and monitoring indicators established • Environmental carrying capacity **Level 2**: Successful coastal environment-friendly enterprises expanded • Environmental carrying capacity established and monitoring and control mechanisms set in place • Livelihood and enterprise development programs expanded employing fisherfolk/coastal communities in nonfishing livelihoods **Level 3**: Coastal environment-friendly enterprises sustained showing positive impacts • Livelihood and enterprise development programs sustainably sustained. • Monitoring resulted in measurable socioeconomic benefits to fisherfolk/coastal communities